

# PATENT ABSTRACTS OF JAPAN

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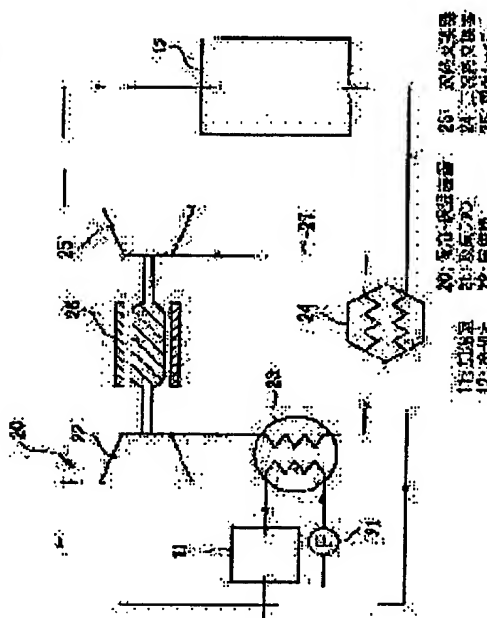
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## (54) COLD AND HEAT INSULATION APPARATUS

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To expand a storage space, and to save the power.

**SOLUTION:** A cold and heat insulation apparatus comprises one system, and has an intake fan 21, a compressor 22, a primary heat exchanger 23 and a secondary heat exchanger 24, and an expansion turbine 25. Outside air is taken into the primary heat exchanger 23 by the intake fan 21, the outside air is heat-exchanged with high-temperature and high-pressure air from the compressor 22 in the primary heat exchanger 23, and generated in hot air, and the hot air is fed to a heating chamber 11. Air from the compressor 22 is passed through the heat exchangers 23 and 24 and cooled, and further passed through the expansion turbine 25 to generate cold air of low-temperature at the atmospheric pressure, and the generated cold air is fed to a cooling chamber 12.



## LEGAL STATUS

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